FACT SHEET

NPDES Permit Number: WA-000206-2
Public Notice Date:
Public Notice Expiration Date:
Technical Contact: Susan Poulsom 206 553-6258 or
1-800-424-4372 (within Region 10)
poulsom.susan@epa.gov

The U.S. Environmental Protection Agency (EPA) Proposes to Reissue a Wastewater Discharge Permit to:

Puget Sound Naval Shipyard
Bremerton, Washington 98314

and requests the state of Washington to certify this NPDES permit

EPA Proposes NPDES Permit Reissuance

EPA proposes to reissue a National Pollutant Discharge Elimination System (NPDES) permit to the Puget Sound Naval Shipyard (PSNS). The draft permit sets conditions on the discharge of pollutants from PSNS to Sinclair Inlet. In order to ensure protection of water quality and human health, the permit places limits on the types and amounts of pollutants that can be discharged.

This fact sheet includes:

- information on public comment, public hearing, and appeal procedures
- a description of the current and proposed discharge
- a listing of past and proposed effluent limitations and other conditions
- a map and description of the discharge location
- detailed background information supporting the conditions in the draft permit

The State of Washington Certification.

EPA is requesting that the Washington Department of Ecology certify the NPDES permit for PSNS, under section 401 of the Clean Water Act.

Public Comment

The EPA will consider all substantive comments before reissuing the final permit. Those wishing to comment on the draft permit or request a public hearing may do so in writing by the

expiration date of the Public Notice. All comments should include name, address, phone number, a concise statement of basis of comment and relevant facts upon which it is based. A request for public hearing must state the nature of the issues to be raised as well as the requester's name, address and telephone number. All written comments should be addressed to the Office of Water Director at U.S. EPA, Region 10, 1200 6th Avenue, OW-130, Seattle, WA 98101; submitted by facsimile to (206) 553-0165; or submitted via e-mail at poulsom.susan@epa.gov.

After the Public Notice expires and all significant comments have been considered, EPA's Regional Director for the Office of Water will make a final decision regarding permit reissuance. If no comments requesting a change in the draft permit are received, the tentative conditions in the draft permit will become final, and the permit will become effective upon issuance. If significant comments are received, the EPA will address the comments and reissue the permit along with a response to comments. The permit will become effective 33 days after the issuance date, unless a request for an evidentiary hearing is submitted within 33 days.

Documents are Available for Review

The draft NPDES permit and related documents can be reviewed or obtained by visiting or contacting EPA's Regional Office in Seattle between 8:30 a.m. and 4:00 p.m., Monday through Friday (See address below).

United States Environmental Protection Agency
Region 10
1200 Sixth Avenue, OW-130
Seattle, Washington 98101
(206) 553-0523 or
1-800-424-4372 (within Alaska, Idaho, Oregon and Washington)

The fact sheet and draft permit are also available at:

EPA Washington Operations Office
300 Desmond Drive SE
Lacey, WA 98503
360 753-9080

Washington Department of Ecology
300 Desmond Drive SE
Lacey, WA 98503
360 407-6275

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I. APPLICANT

United States Department of Defense
Department of Navy
Puget Sound Naval Shipyard

Facility Mailing Address:
1400 Farragut Avenue
Bremerton, Washington 98314

Facility Contact: Robert Cipra (360) 476-6009

II. FACILITY DESCRIPTION

The Puget Sound Naval Shipyard is located along the northern shore of Sinclair Inlet on Puget Sound and is bounded by the City of Bremerton. The Navy has owned and operated facilities at this location since 1891.

The complex consists of the Naval Shipyard and the Naval Supply Center. The site covers approximately 350 acres of land and an additional 340 acres of tidelands along 11,000 feet of shoreline. The complex contains over 300 buildings and structures, 6 deep water piers, 6 dry docks, and numerous moorings. (Source: Superfund NPL Assessment Program (SNAP) Database) A location map is provided in Appendix A.

The shipyard repairs, overhauls, converts, refurbishes and refuels navy vessels and breaks up (cuts up and recycles) ships and submarines, including those with nuclear-powered propulsion systems that have reached the end of their useful life.

III. DESCRIPTION OF ACTIVITY AND DISCHARGE

Discharges at the PSNS come from dry dock operations, stormwater runoff and treated wastewater from the steam generation plant. This section provides a description of the operations and activities that generate the discharges and a description of the individual wastestreams composing the discharges.

A. Dry Dock Operations and Discharges

The shipyard has six large graving docks that are used for dry docking Navy ships undergoing maintenance, repair or ship breaking operations. There are three dry dock operation states: normal, docking/undocking, and partially flooded. Under the normal operating mode, the caisson is in place and there is no water in the dry dock. Ship repair activities are underway in the dry docks. Ship repair activities that generate pollutants include blasting, painting, metal

finishing, welding and grinding. Discharges from this normal mode of operation include: non-contact cooling water, storm water, steam condensate, freeze protection water, caisson leakage, dewatering associated with groundwater infiltration, and demineralized water.

Under the vessel docking/undocking process, the following sequence of events takes place:

1. Dry dock is filled with water
2. Caisson is floated and moved aside
3. Vessel is moved into the dry dock
4. Caisson is returned to the dry dock
5. Dry dock is dewatered by pumping the water into Sinclair Inlet
6. Dry dock returns to its normal mode of operation.

The docking/undocking procedure typically takes one day, but can take up to one week. The vessel docking/undocking mode produces dewatering water and caisson gate ballast water.

Another dry dock practice is to leave the dry dock partially flooded for one to five days before vessel movement. The caisson remains in-place and the dry dock is partially filled with Sinclair Inlet water. The Shipyard conducts vessel operational tests which would otherwise be conducted pierside. This allows the Shipyard to minimize the potential of petroleum spills during fueling operations. During this period, drainage pumps are used to expel Sinclair Inlet water that enters through the pump well sump.???

The drainages from the normal operation state of the dry docks flow through the Process Wastewater Collection System (PWCS). This system is set up to send flow directly through the outfalls, to the sanitary sewer, or for further treatment. Sources of process water collected by the PWCS include steam condensate, freeze protection water, storm water, emergency eye wash water, caisson gate leakage water, and demineralized water?????

Dry dock discharge that does not flow through the PWCS includes hydrostatic relief water, dock de-flooding water, partially flooded dry-dock discharge, caisson gate ballast water, and noncontact cooling water from vessels in the drydocks.

B. Stream Generation Plant

A steam generation plant is located on-site at the southwest corner of the PSNS. Wastewater from the stream generation plant is treated and directly discharged.

C. Stormwater

The PSNS covers an area of approximately ___- acres which includes ___ acres of impervious surfaces.

D. Description of Individual Discharges

Bruce-

Thanks for the sending the power point diagram. I'm still working on the description of the facility and discharges. I really need additional information & to clarify my understanding of the flow of waste generated/discharged. Not sure the best way to get information, but thought I'd fire off a laundry list of information I'm interested in, and follow-up with a phone call during which I'll jot down the info?

Potable water contribution to PWCS
Specify all wastrestreams that compose the "potable" contribution. i.e. freeze protection, etc.

Summarize volumes of water from PWCS that were sent to Bremerton WWTP directly, for additional treatment or directly discharged during the last few years.

Steam Condensate –
Is it only directly discharged at the dry docks?

Hydrostatic Relief Water -
More description – i.e. listing of outfalls, ID pumps, maximum pumping rates

Dock De-flooding Water
The volume of water that is pumped from each dry dock during a docking event and the maximum pumping rate, outfall designation.

Partially Flooded Dry-dock discharge
ID outfalls through which the water is discharged

Caisson Gate Ballast Water
Maximum volume of the caisson ballast water for each of the dry dock

Noncontact cooling water from vessels in the drydocks
ID outfalls for the cooling water

Building 880 Foundation Drainage
What's in building 880? Description.

Cooling Water Building 431
Description. ID outfall

Stormwater

The PSNS covers an area of approximately ___- acres which includes ___ acres of impervious surfaces.

E. Wastestreams generated at PSNS not covered by this permit

Additional wastestreams are produced at the ship yard that are not directly discharged and are not covered under this permit. The major wastestreams include electroplating wastestream, bilge water, contaminated dry dock process water (e.g. pressure washing and hydro-blasting, contaminated stormwater), and sanitary sewer.

Electroplating wastewater

Electroplating wastewaters from the facility are pretreated then routed to the City of Bremerton Wastewater Treatment Plant.

Ultra high-pressure wash water

The PSNS paint removal operations primarily use high and ultra-high pressure water. Historically, the PSNS used dry abrasive blasting. The PSNS employs two methods of collecting the high-pressure wastewater. The ultra high-pressure units have integral wastewater recovery and treatment systems. Once treated, the water is reused. For those systems without integral wastewater recovery capability, secondary containment is constructed or the PWCS is used. (Supplement 2) The permit prohibits the discharge of paint removal wash water. ***Check with Bruce - would they discharge the high-pressure wash water.***

Hydro-blasting – High and ultra-high pressure water (approximately 2,000 to 33,000 psi) is used to remove paint coating from ship hulls. The shipyard employs two methods of collecting the high-pressure wastewater. The ultra high-pressure units have integral wastewater recovery and treatment systems. Once treated, the water is reused. For those systems without integral wastewater recovery capability, secondary containment is constructed or the PWCS is used. (Supplement 2) The permit prohibits the discharge of pressure wash water.

Hull pressure washing – Water, sometimes with detergent is sprayed at the hull at a pressure of approximately 2,000 to 3,000 psi. The hull pressure washing is intended to remove sea growth, slime, and salt from ship hulls.

Dry dock pressure washing cleaning water – This wastewater consists of water used to pressure wash the dry dock before dry dock flooding, as well as water used to pressure wash the dry dock during a project.

Domestic Wastewaters - Domestic wastewater from the facility are routed to the City of Bremerton Wastewater Treatment Plant.

Bilge water - Bilge water from the vessels are pretreated at the facility then routed to the City of Bremerton Wastewater Treatment Plant.

Ballast water - Ballast water may be carried by ships for added stability as they travel. The water may pick up residual oil contaminants in a ship's hold.

Wastewater Characterization

Ship repair activities that generate pollutants include blasting, painting, metal finishing, welding and grinding.

Wastes g

Treatment

PWCS

BMPs

(Supplement 2) Larger particles on the dry dock floors are cleaned up (Supplement 3) by sweeping. (From BB conversation 6/6/21/04) The PSNS found that use of vacuum cleaning

Finer particles are primarily from metal cutting operations and painting (Supplement 3) **Does metal cutting operations and painting only occur in the dry docks??? The PSNS constructed the dry dock Process Water Collection System to reduce copper concentrations. The PWCS allows the PSNS to capture and manage dry dock storm water separately from other sources. The controller operates in AUTO mode, selects the appropriate discharge route based on real-time turbidity. During non-rainfall events, a small flow of miscellaneous water enters the collection system (potable water, steam condensate **why potable water - isn't this wash water???). The controller sends the water into the dry dock drainage system. The PSNS varies the turbidity it's not a set turbidity based on what's going on in the dry dock BW used example of cleaning mud versus hydroblasting. Because of this, the PSNS does not have correlation data for turbidity versus copper levels.). (From BB conversation 6/6/21/04) When it starts to rain, the turbidity increases triggering the controller to send the first flush of strom water into the sanitary sewer. (How long does this take? What kind of valve??

BMPs in place to minimize contact of storm water with the list of significant materials is provided in Appendix ___.

	Total Volume		**Outfalls 018A, 018B, 096**	**Outfall 019**
Non-contact cooling water	1.917		0.814	1.103

Storm Water from dry docks	0.07		0.052	0.018
Hydrostatic relief water	6.027		2.02	4.007
Steam condensate	0.0864		0.0576	0.0288
Caisson leakage/salt water	Intermittent		intermittent	intermittent
Potable water	0.212		0.14	0.072
Building 880 Foundation drainage	< _____		negligible	na
Caisson Gate Ballast Water				

IV.TREATMENT OF PWCS WASTEWATER

Dry Dock Discharges to the Process Water Collection System (PWSC)

Prohibited Discharges

Wastewaters that enter the PWCS that are routed to the treatment and disposal at the Bremerton WWTP include hydro-blast water, hull pressure wash water and dry dock cleaning water, and storm water in excess of the NPDES permit limits.

V.

VI.

VII.

VIII.THE PWCS WATER PASSES INTO A TANK THAT IS EQUIPPED WITH A WEIR. THE SET-UP REMOVES HEAVY SEDIMENT. IF CERTAIN PROCESSES ARE OCCURRING ON THE DRY DOCK (_____), THE WASTEWATER IS DISCHARGED DIRECTLY TO THE SANITARY SEWER.

IX.

X.IF _____CONDITIONS ARE NOT OCCURRING IN THE DRY DOCKS, THE PWCS IS ON AUTOMATIC MODE. A TURBIDIMETER METER IS USED TO SEGREGATE WASTEWATER NEEDED FURTHER TREATMENT. LOW TURBIDITY WASTEWATER IS DISCHARGED DIRECTLY TO SINCLAIR INLET. HIGH TURBIDITY WASTEWATER IS DIVERTED TO COLLECTION TANKS FOR FURTHER TREATMENT. THE WASTEWATER MAY BE TREATED IN EITHER THE WASTEWATER FILTRATION EQUIPMENT (WWFE) OR THE OILY WATER TREATMENT SYSTEM (OWTS). IF THE MAXIMUM FLOW LIMITATION FOR THE DAY HAS BEEN REACHED????????????? THE DIVERTED PWCS WATER WILL BE DISCHARGED TO SINCLAIR INLET OR RETAINED FOR DISCHARGE TO THE SANITARY SEWER THE NEXT DAY.

XI.

XII.INSERT INFORMATION ON TURBIDITY VERSUS COPPER CONCENTRATIONS.

Discharge		Treatment	NPDES 94 Monitoring	Outfalls
Hydrostatic relief water		None	Drydock outfalls	Drydocks
Caissson leakage		Settling	Drydock outfalls	Drydocks via PWCS
Drydock wall and floor leakage		Settling	Drydock outfalls	Drydocks via PWCS
Caisson ballast water			None	Direct Discharge to Sinclair Inlet Is it pumped?
Bilge water				Pumped to a tanker; pretreatment at WWTL and discharged to Bremerton WWTP
Ballast – Oily				Pumped to a tanker, pretreatment at _____ discharged to Bremerton WWTP
Ballast - Clean		None	None	Direct Discharge to Sinclair Inlet Is it pumped?
Electroplating Wastewater		Pretreatment at _____		Bremerton WWTP
Deflood dry docks		None	None	Outfalls

Source of pollutants
Finer particles are primarily from metal cutting operations and painting (Supplement 3)
**Does metal cutting operations and painting only occur in the dry docks???

Stream Generation Plant.

Stormwater

B. DESCRIPTIONS OF OUTFALLS

There are four main outfalls discharging from the dry dock operations (Outfalls 018A, 018B, 096, and 019) and one outfall discharging from the stream generation plant (Outfall 021).

Outfalls 018A, 018B, 096, and 019

Outfalls 018A, 018B, and 096 discharge from dry dock operations 1, 2, 3, 4 and 5. The drainage system from dry docks 1 through 5 is hydraulically connected through a single drainage tunnel. Docking/undocking a vessel in any one of dry docks 1 through 5 will in many cases require short-term changes in the location of drainage water discharge. Because a single drainage tunnel hydraulically connects the five dry docks, valves in the drainage tunnel are used to isolate the dry dock being flooded.

Isolating a particular dry dock may require the Shipyard use a "non-primary pumpwell" to temporally discharge drainage water. ****Where are these non-primary pumps?**Need info on these outfalls****

Outfall 019 discharges from the east side of the south end of dry dock 6. The outfall is hydraulically isolated from the other outfalls.

Contributing flows to Outfalls 018A, 018B, 096, and 019 are summarized in Table __.

Table __. Flows to Outfalls 018A, 018B, 096 and 019

Process	Flow (mgd)	
	Outfalls 018A, 018B, 096	**Outfall 019**
Non-contact cooling water	0.814	1.103
Storm Water from dry docks	0.052	0.018
Hydrostatic relief water	2.02	4.007
Steam condensate	0.0576	0.0288
Caisson leakage/salt water	intermittent	intermittent
Potable water	0.14	0.072
Building 880 Foundation drainage	negligible	na

Outfall 021

Outfall 021 is located at the southwest portion of the PSNS. Outfall 021 discharges treated process wastewater from the steam generation plant. The average flow is 82,000 gpd. Wastestreams generated by the stream generation plant include:

C. BOILER BLOWDOWN
D. DEMINERALIZER CORROSIVE DRAINS
E. INDUSTRIAL DRAINS??? ***PART OF THE STREAM GENERATION PLANT?***
F. BUILDING 917 DRAINS ***PART OF THE STREAM GENERATION PLANT?***

Prior to discharge, the wastestream is treated with:

A. FLOW EQUALIZATION
B. NEUTRALIZATION
C. SLOW SAND FILTRATION
D. FINAL PH ADJUSTMENT

Sludges from the wastewater treatment process are landfilled. **Where?**

Physical characteristics of the outfalls are summarized in Table __.

Outfall 018A	Located at dry dock 5. Water to the outfall is pumped through Pumpwell 5. Pumpwell 5 operates in lead-lag mode with pumpwell 4, with the lead pump being alternated monthly. Outfall 018A is ****___-feet long,**** 24-inch diameter ****open-ended**** pipe located just west of the opening to dry dock 4. The pipe depth is minus 0.8 feet below mean low low water. The depth of water near the outfall is approximately 42 feet.
Outfall 018B	Located at dry dock 4. Water to the outfall is pumped through Pumpwell 4. Pumpwell 4 operates in lead-lag mode with pumpwell 5, with the lead pump being alternated monthly. Outfall 018B is ****___-feet long,**** 24-inch diameter ****open-ended**** pipe located just west of the opening to dry dock 4. The pipe depth is minus 0.8 feet below mean low low water. The depth of water near the outfall is approximately 42 feet.
Outfall 096.	Located at the base of drydock 2. Water to the outfall is pumped through pumpwell 2. Pumpwell 2 only operates under certain occasions depending on which dock is hydraulically isolated. is ___ foot long, a ___-inch diameter pipe, located just sourth of drydock 2.

Outfall ???	During certain docking/undocking operations discharges of dry dock drainage may occur directly from dry dock pumpwell 3 and 3a, located at the south end of dry dock 3. These discharges are very infrequent and have a duration which typically does not exceed four or five hours.
Outfall 019	A 36-inch diameter pipe. The pipe depth is minus 5.17 feet at mean low low water. The depth of water near the outfall is approximately 43 feet.
Outfall 021	A 40-foot long, 8-inch diameter, diffused port outfall, located at an elevation of -37.4 feet mean low low water.

Tables 1 summarizes pollutants present in the discharge from the Outfalls 018A, 018B, 019 and 096. The table identifies maximum concentrations of detected toxic substances, pollutants for which there were no detected concentrations, but which the Permittee believes are present in the discharge, and concentrations of conventional pollutants in the discharge.

Stormwater Outfalls

There are 92 stormwater outfalls at PSNS. The outfalls drain a total area of 357 acres. of that, 276 acres are impervious. The outfalls are summarized in Appendix __. It includes the area drained by each outfall.

C. POLLUTANTS PRESENTS IN DISCHARGE

Table 1
Pollutants Presents at
Outfalls 018A, 018B, 019, 096, and 021

Parameters	Maximum Daily Concentrations (ug/L unless noted)		
	Outfalls 018A, 018B, 096	**Outfall 019**	**Outfall 021**
BOD_5, mg/L	nd 5.0	nd 5.0	6.0
COD, mg/L	760	580	nd 10.0
TOC, mg/L	6.2	1.9	4.0
TSS, mg/L	11	nd 4.0	228
pH, std. units (Range)	7.6	7.7	6.7 - 7.1
Oil and Grease, mg/L	nd	nd	12
Ammonia (mg/L)	0.69	0.38	nd 0.1
Aluminum	139	174	absent, not tested
Barium	48.3	61	absent, not tested
Iron	967	102	absent, not tested
Magnesium	604,000	785,000	present; not tested
Manganese	297	410	absent, not tested
Arsenic	3.4	1.8	absent, not tested

Table 1
Pollutants Presents at
Outfalls 018A, 018B, 019, 096, and 021

Parameters	Maximum Daily Concentrations (ug/L unless noted)		
	Outfalls 018A, 018B, 096	**Outfall 019**	**Outfall 021**
Copper	680	190	present; nd
Lead	17	4	absent, not tested
Mercury	0.46	0.4	absent, nd
Zinc	48	49	absent, nd
Bromoform	0.4	absent, nd	absent, nd
Chloroform	2.4	dry dock drainage[1]	14.18
Dichlorobromomethane	0.2	absent, nd	absent, not tested
Tetrachloroethylene	0.9	absent, nd	absent, nd
Trichloroethylene	1.9	dry dock drainage[1]	absent, nd
Chlorine	present; not tested[2,xx]	present; not tested[2,xx]	absent; not tested
Nitrogen	present; not tested[2, yy]	present; not tested[2, yy]	absent; not tested
Phosphorus	present; not tested[2, yy]	present; not tested[2, yy]	present; not tested[2]
Sulfide	present; not tested[2, zz]	absent, not tested	absent, not tested
Surfactants	present; not tested[2]	present; not tested[hh]	absent, not tested
Molybdenum	present; not tested[2, aa]	present; not tested[2, aa]	absent, not tested
Tin	present; not tested[2, aa]	present; not tested[2, aa]	absent, not tested
Titanium	present; not tested[2, aa]	present; not tested[2, aa]	absent, not tested
Nickel	present; nd[2, aa]	present; nd	absent, not tested
Cadmium	present; nd	present; nd	absent, not tested
Chromium	absent, nd	present; nd	absent, nd
1,1 Dichloroethane	dry dock drainage[1]	dry dock drainage[1]	absent, not tested
1,2 Dichloroethane	nd	dry dock drainage[1]	absent, nd
1,1 Dichloroethylene	dry dock drainage[1]	absent, nd	absent, nd
1,2 Dichloropropane	dry dock drainage[1]	absent, nd	absent, nd
1,1,1-Trichloroethane	dry dock drainage[1]	dry dock drainage[1]	absent, nd

Table 1
Pollutants Presents at
Outfalls 018A, 018B, 019, 096, and 021

Parameters	Maximum Daily Concentrations (ug/L unless noted)		
	Outfalls 018A, 018B, 096	Outfall 019	Outfall 021

Notes

present; not tested = In NPDES permit application, the permittee listed the analyte to be "believed present"; however, the analyte was not test for.

Cc Pollutant was detected in dry dock drainage sample. Pollutant was not detected at the outfall. (But it was tested for?????).

1 Analyte was detected in dry dock drainage sample or pumpwell, but not at the outfall.
2 Not tested for, but believed present.
Xx Chlorine is present in discharges of potable water, non-contact cooling water and freeze protection water.
Yy Nitrate-Nitrite and phosphorus are present in surface waters which enter the dry docks through hydrostatic relief and caisson leakage.
Zz PSNS attributes sulfide odors in dry dock 3 to be IR???? related.
Aa Pollutant is a constituent of HY80 steel, of which the Navy vessel hulls are constructed. Hulls are cut up for disposal/recycling. Cutting debris can potentially enter the dry dock drainage systems.
Bb Sampling taken by USGS
Hh Surfactants are present in formulations used to clean decks of surface craft in dry dock.

In the 1994 permit, PSNS was required to sample from __ outfalls. The detected concentrations are listed in Table __.

Table __. Maximum Pollutant Concentration in Outfall Sampling

Outfall:	**002**	**003**	**006**	**010**	**012**	**013**	**014**	**022**	**025**	**028**	**030**	**040**	**052**
Detected Parameters - Conventional													
Oil and Grease	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TPH	1.0	1.5	N/A	N/A	8.8	8.1	4.4	3.8	8	3.5	N/A	26	1.7
BOD_5	7	N/A	N/A	N/A	7	24	38	4	6	ND	N/A	13	17
COD	140	24	N/A	N/A	85	87	89	110	240	390	N/A	86	38
TSS	25	11	N/A	N/A	210	43	350	420	120	130	N/A	210	44
pH Minimum	7.1	7.6	N/A	N/A	6.97	7.3	7.6	7.5	7.0	7.5	N/A	7.3	7.4
pH Maximum	7.8	8.2	N/A	N/A	7.5	7.4	8.4	9.6	9.3	7.7	N/A	7.7	7.8
Detected Parameters - Toxics													
Arsenic	10	ND	12	2.4	5.6	3	13	3	5.5	12	140	4.2	1.5
Cadmium	1	ND	1.4	1.2	4.3	3	2.1	2	6	1.9	6.2	2.6	ND
Chromium	15	ND	ND	34	41	13	52	13	200	47	87	23	ND
Copper	230	200	450	240	190	50	260	170	1,300	420	660	210	110
Lead	99	19	57	950	140	27	500	40	350	240	1,200	88	30
Mercury	0.2	ND	ND	1.1	0.24	ND	13	ND	ND	0.39	0.8	0.2	ND
Nickel	180	8.9	50	52	48	21	69	53	1,500	160	53	46	24
Zinc	360	230	540	490	630	150	820	440	880	610	2,800	830	180
Di-n-butlyphthlate	--	34	12	--	--	63	--	--	--	14	--	--	13
Bis (2-ethylhexly) phthalate	--	--	11.2	--	--	28	--	--	--	1,738	--	--	13
PCB-1260	--	--	--	--	--	--	--	--	--	4.7	--	--	--

1. Sample obtained during first 20 minutes of storm event. Number of storm events sampled for each parameter (for each outfall) ranged from 1 to 5.

******Pollutants of Concern - How do I identify the pollutants of concern?*********
*****BMPs - Do I identify the BMPs*****
*****Add column of water quality criteria for each pollutant, compare******

3.0 Facility Permit History and Performance

3.1 Recent Permit History

August 1, 1988	Current permit was reissued by EPA
March 14, 1991	Partial application submitted for permit renewal
May 3, 1991	Completed application submitted for permit renewal
April 1, 1994	Current permit expired
October 2, 1998	Revised application submitted for permit renewal
April 12, 2002?	Replacement pages to the October 2, 1998 application submitted with updated process information and corrected errors in reported monitoring data

Because the Permittee submitted within ____ days, the 1988 permit has been administratively extended and remains fully effective and enforceable until reissuance.

Parameters which were monitored for or had discharge limits in the previous permit are listed in Table __.

Table __ Parameters with Monitoring and Discharge Limits Under 1996 Permit		
Parameters with Discharge Limits:		
Outfall	**Parameters**	**Notes**

018A, 018B, 019, 096	copper, oil and grease	
021	flow, temperature, oil and grease, TSS, chlorine, pH	
021	chromium, zinc	air compressor cooling tower blowdown and diesel generator cooling tower blowdown before it is commingled with other wastestreams
Parameters for which Monitoring Only is Required:		
Outfall	**Parameters**	**Notes**
018A, 018B, 019, 096	flow, lead, mercury, zinc, temperature, PCBs, Whole Effluent Toxicity	lead, mercury, zinc required for one year only

021	----	

3.2 Compliance History

The PSNS submits monthly discharge monitoring reports (DMRs) to EPA summarizing the results of effluent monitoring required by the permit. Table __ lists the number of effluent limit violations based on review of monitoring data from ___ to ____.

*****Need to get more recent DMRs and process that data*******
*****Talk to Rob about "compliance history, issues********
******Talk to Kim about inspections**********

Table __ Number of Reported Values Above Permit Limits for Copper from ___ to ____ Based on DMR Data

Outfall	Unit		Permit Limit	No. of Violations
018, 018A, 096	Average Monthly	mg/L	0.019	25
		lbs/day	0.44	29
	Daily Maximum	mg/L	0.033	26

		lbs/day	0.77	28
019	Average Monthly	mg/L	0.019	6
		lbs/day	0.83	4
	Daily Maximum	mg/L	0.033	11
		lbs/day	1.44	9

***One year of monitoring was required for lead, mercury, zinc, and PCBs in the 94 permit. Where is that data.

	018 and 019		021	
	Chronic	Acute		
Boundary	200 feet	20 feet		
	4:1	2:1	100:1	

Dilution Factors (1994 Permit)

ENVVEST

http://www.epa.gov/ProjectXL

4 RECEIVING WATER

4.1 Beneficial Uses and Water Quality Criteria

The PSNS discharges to Sinclair Inlet. The *State of Washington Water Quality Standards ( )* designate beneficial uses for waters of the State.

Sinclair Inlet is located within the boundary of the water body described in WAC 173-201A-612 as "Puget Sound through Admiralty Inlet and South Puget Sound, south and west to Brisco point and the northern tip of Harstene Island." Waters within this water body are protected for the following uses:

(1) AQUATIC LIFE USES. EXTRAORDINARY QUALITY SALMONID AND OTHER FISH MIGRATION, REARING, AND SPAWNING; CLAM, OYSTER, AND MUSSEL REARING AND SPAWNING; CRUSTACEANS AND OTHER SHELLFISH (CRABS, SHRIMP, CRAYFISH, SCALLOPS, ETC.) REARING AND SPAWNING.
(2) SHELLFISH HARVEST
(3) PRIMARY CONTACT RECREATIONAL USE
(4) MISCELLANEOUS USES. WILDLIFE HABITAT, HARVESTING, COMMERCE AND NAVIGATION, BOATING, AND AESTHETICS.

*** Do we care about this.***Some of these characteristic uses may not be presently supported in Sinclair Inlet. The Washington Department of Health prohibits commercial shellfish harvesting in Sinclair Inlet. This prohibition is due to the existence of a the City of Bremerton Wastewater Treatment Plant outfall and _____. In addition, the Bremerton-Kitsap County Health District has a closure advisory for Sinclair Inlet which recommends against consumption of all species of shellfish, crab, and all bottom fish including rockfish. The chemicals of concern listed in the advisory include mercury, and polycyclic aromatic hydrocarbons. (http://www.doh.wa.gov/ehp/oehas/EHA_fish_adv.htm, August 2002)

The State water quality standards specify water quality criteria that is deemed necessary to support the use classifications. These criteria may by numerical or narrative. The water quality criteria applicable to the proposed permit are provided in Appendix C. These criteria provide the basis for most of the effluent limits in the draft permit.

4.2 TMDL Listing

Portions of Sinclair Inlet are listed on Washington State's 303(d) list (a list of impaired waters compiled under Section 303(d) of the Clean Water Act). The 303(d) list identifies water bodies that do not meet or are not expected to meet water quality standards. The TMDL list for Sinclair

Inlet includes heavy metal and organic contaminants in the waters, sediments and tissues of marine organisms and fecal coliform in the water.

Sinclair Inlet is listed as not meeting water quality standards for the parameters listed in Table ___.

Table __. Parameters on 303(d) List for Sinclair Inlet

Metals	Organics
Arsenic	Benzo(g,h,i)perylene
Cadmium	Benzoic Acid
Copper	Bis(2-ethylhexyl) Phthalate
Lead	Butyl Benzyl Phthalate
Mercury	Chrysene
Zinc	Fluoranthene
	Phenanthrene
Pesticides	1,4-dichlorobenzene
Indeno(1,2,3-cd)pyrene	2,4-dimethylphenol
Aldrin	Benz(a)anthracene
Chrysene	Butyl Benzyl Phthalate
PCBs	
PCB-1254	
PCB-1260	

Source: http://www.epa.gov/owow/tmdl/

Section 303(d) of the Clean Water Act (CWA) requires States to develop a Total Maximum Daily Load (TMDL) management plan for water bodies on the 303(d) list. A TMDL allocates loading capacities to point and nonpoint sources to the water body. Permit limits for point sources must be consistent with applicable TMDL allocations. The TMDL schedule for Sinclair Inlet is_____.

The General Provisions section of the draft permit contains a provision to allow EPA to reopen the permit (e.g., to incorporate any applicable effluent limitations and conditions which may result from final TMDLs on these receiving waters).

5.0 ENVVEST Project

The PSNS Project ENVVEST is part of EPA's eXellence and Leadership Program (Project XL). Project XL is a national pilot program that allows state and local governments, businesses and federal facilities to develop with EPA innovative strategies to test better or more cost-effective ways of achieving environmental and public health protection. In exchange, EPA will issue regulatory, program, policy, or procedural flexibilities to conduct the experiment. Specific information on Project XL may be found

on the EPA website at: http://www.epa.gov/ProjectXL/.

Insert discussion of what ENVEST is and how it relates to the permit.**

6.0 BASIS FOR EFFLUENT LIMITATIONS AND MONITORING

EPA followed the Clean Water Act (CWA), state and federal regulations, and EPA's 1991 *Technical Support Document for Water Quality-Based Toxics Control* (TSD) to develop the effluent limits in the draft permit. In general, the CWA requires that the effluent limit for a particular pollutant be the more stringent of either the technology-based limit or water quality based limit. Appendix C provides discussion on the legal basis for the development of technology-based and water quality-based effluent limits.

EPA sets technology-based limits based on the effluent quality that is achievable using readily available technology. The Agency evaluates the technology-based limits to determine whether they are adequate to ensure that water quality standards are met in the receiving water. If the limits are not adequate, EPA must develop additional water quality-based limits. Water quality based limits are designed to prevent exceedances of the Washington water quality standards in the receiving waters.

The limits in the draft permit are listed in Table — and compared with existing effluent limits for outfalls -----. Appendix C describes in detail how the effluent limits were developed. ****Insert summary of how permit limits were developed, i.e. they were technology based, water quality, etc.*****

Table I: Comparison of Permit Limits

Parameter		1994 Permit Limits	Proposed Limits
Outfall 018, 018A, and 096			
Oil and Grease	Monthly Average		
	Daily Maximum		
Copper, mg/L	Monthly Average		
	Daily Maximum		
Copper, lns/day	Monthly Average		
	Daily Maximum		
Outfall 019			

Table I: Comparison of Permit Limits			
Parameter		**1994 Permit Limits**	**Proposed Limits**

VI. MONITORING REQUIREMENTS

Section 308 of the Clean Water Act and federal regulation 40 CFR 122.44(i) require that monitoring be included in permits to determine compliance with effluent limitations. Monitoring may also be required to gather data for future effluent limitations or to monitor effluent impacts on receiving water quality. The PSNS is responsible for conducting the monitoring and reporting the results to EPA on monthly DMRs and in annual reports. This section describes the monitoring requirements in the draft permit.

A. Effluent Monitoring

Table II presents the proposed monitoring requirements based on the minimum sampling necessary to adequately monitor the facility's performance. For comparison purposes, the table also shows the monitoring requirements in the past permit.

Some of the water quality-based effluent limits in the draft permit are close to the capability of current analytical technology to detect and/or quantify (close to method detection limits). To address this concern, the draft permit contains a provision requiring the PSNS to use analytical methods that can achieve a method detection limit less than the effluent limitation. Method detection limits are the minimum levels that can be accurately detected by current analytical technology.*

BEST MANAGEMENT PRACTICES PLAN

They have one. Do we require another one?**

The Clean Water Act and federal regulations authorize EPA to require *best management practices*, or BMPs, in NPDES permits. BMPs are measures for controlling the generation of pollutants and their release to waterways. For many facilities, these measures are typically included in the facility Operation & Maintenance plans (O&M) plans. BMPs are important tools for waste minimization and pollution prevention. EPA encourages facilities to incorporate BMPs into their O&M plans and to revise them as new practices are developed.

The proposed permit requires UniSea to develop and implement a BMP plan within 180 days of permit issuance. The Permittee must develop a materials balance assessment (i.e., a flow diagram) of its process, treatment and discharge lines and quantify the input and output streams of water and pollutants. The Permittee must consider the optimization of product recovery and chemical use, staff training aimed at controlling the discharge of pollutants to the receiving waters, spill prevention and control, and water conservation. The Permittee must document this assessment as a working document known as a BMP plan in accordance with the requirements of the permit.

B. Best Management Practices Plan

Section 402 of the Clean Water Act and federal regulations at 40 CFR 122.44(k)(2) and (3) authorize EPA to require best management practices (BMPs) in NPDES permits. BMPs are measures that are intended to prevent or minimize the generation and the potential for release of pollutants from industrial facilities to waters of the U.S. These measures are important tools for waste minimization and pollution prevention.

The draft permit requires TCMC to prepare and implement a BMP Plan within 120 days and 180 days, respectively, of permit issuance. The BMP Plan is intended to achieve the following objectives: minimize the quantity of pollutants discharged from the facility, reduce the toxicity of discharges to the extent practicable, prevent the entry of pollutants into waste streams, and minimize storm water contamination. The BMP Plan will apply to all components of the TCM. The draft permit requires that the BMP Plan be maintained and that any modifications to the facility are made with consideration to the effect the modification could have on the generation or potential release of pollutants. The BMP Plan must be revised if the facility is modified and as new pollution prevention practices are developed.

The draft permit also requires comprehensive site compliance evaluations and submittal of annual reports documenting the compliance evaluations, observations related to implementation of the BMP Plan, any incidents of non-compliance, and any corrective actions and BMP Plan modifications over the year.